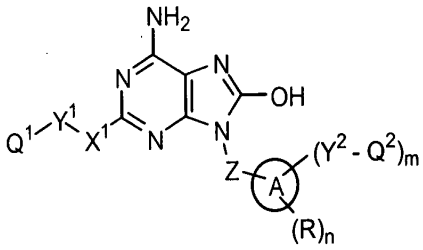
## AMENDMENTS TO THE CLAIMS

Claims 1-46 have been canceled.

47. (New) A topically administrable medicament containing an adenine compound represented by a general formula (1):



, wherein

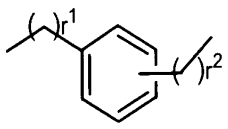
Ring A is a 6 to 10 membered mono or bicyclic aromatic hydrocarbon ring or a 5 to 10 membered mono or bicyclic heteroaromatic ring containing 1 to 3 hetero atoms selected from the group of 0 to 2 nitrogen atoms, 0 or 1 oxygen atom and 0 or 1 sulfur atom,

n is an integer selected from 0 to 2, m is an integer selected from 0 to 2,

R is halogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkoxy group, or substituted or unsubstituted amino group, and when n is 2, R(s) may be the same or different,

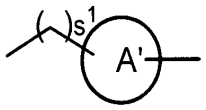
$X^1$ is oxygen atom, sulfur atom, $NR^1$ (wherein $R^1$ is hydrogen atom or alkyl group) or a single bond,

$Y^1$ is a single bond, alkylene which may be substituted by oxo group, or divalent group of the formula below:



(wherein $r^1$ and $r^2$ are independently an integer selected from 1 to 3),

$Y^2$ is a single bond, alkylene optionally substituted by hydroxy group or oxo group, oxyalkylene, cycloalkylene, oxycycloalkylene, divalent group of a monocyclic hetero ring containing 1 or 2 hetero atoms selected from the group consisting of 1 or 2 nitrogen atoms wherein said nitrogen atom may be substituted, oxygen atoms and sulfur atoms wherein said sulfur atom(s) may be oxidized by 1 or 2 oxygen atoms, or divalent group of the formula below:




(wherein A' is cycloalkylene, $s^1$ is an integer selected from 1 to 3),

Z is alkylene,

$Q^1$ is hydrogen atom, halogen atom, hydroxy group, alkoxy group, or a group selected from the group consisting of Substituents illustrated below,

$Q^2$ is a group selected from the group consisting of Substituents illustrated below,

$R^{10}$ or $R^{11}$ in $Q^2$ may be taken with R to form a 9 to 14 membered fused bi or tricyclic ring together with the adjacent Ring A,

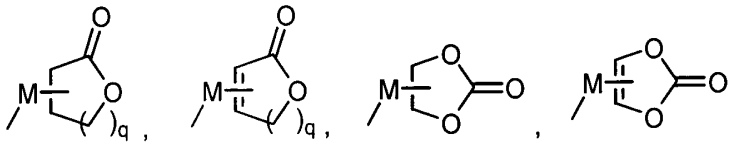
when m is 0, $Q^1$ is a group selected from the group consisting of Substituents illustrated below,

Substituents: $-COOR^{10}$; $-COSR^{10}$; $-OCOOR^{10}$; $-OCOR^{10}$; $-CONR^{11}R^{12}$; $-OCONR^{11}R^{12}$

(wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or

substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



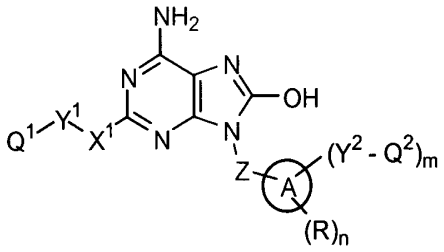
(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3),

and when m is 2, $(Y^2\text{-}Q^2)$(s) may be the same or different,

or a pharmaceutically acceptable salt thereof as an active ingredient.

48. (New) A topically administrable medicament containing an adenine compound represented by a general formula (1):



, wherein

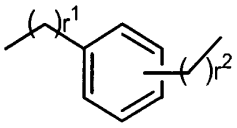
Ring A is a 6 to 10 membered mono or bicyclic aromatic hydrocarbon ring or a 5 to 10 membered mono or bicyclic heteroaromatic ring containing 1 to 3 hetero atoms selected from the group of 0 to 2 nitrogen atoms, 0 or 1 oxygen atom and 0 or 1 sulfur atom,

n is an integer selected from 0 to 2, m is an integer selected from 0 to 2,

R is halogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkoxy group, or substituted or unsubstituted amino group, and when n is 2, R(s) may be the same or different,

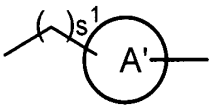
$X^1$ is oxygen atom, sulfur atom, $NR^1$ (wherein $R^1$ is hydrogen atom or alkyl group) or a single bond,

$Y^1$ is a single bond, alkylene which may be substituted by oxo group, or divalent group of the formula below:



(wherein $r^1$ and $r^2$ are independently an integer selected from 1 to 3),

$Y^2$ is a single bond, alkylene optionally substituted by hydroxy group or oxo group, oxyalkylene, cycloalkylene, oxycycloalkylene, divalent group of a monocyclic hetero ring containing 1 or 2 hetero atoms selected from the group consisting of 1 or 2 nitrogen atoms wherein said nitrogen atom may be substituted, oxygen atoms and sulfur atoms wherein said sulfur atom(s) may be oxidized by 1 or 2 oxygen atoms, or divalent group of the formula below:




(wherein A' is cycloalkylene, $s^1$ is an integer selected from 1 to 3),

Z is alkylene,

$Q^1$ is hydrogen atom, halogen atom, hydroxy group, alkoxy group, or a group selected from the group consisting of Substituents illustrated below,

$Q^2$ is a group selected from the group consisting of Substituents illustrated below,

$R^{10}$ or $R^{11}$ in $Q^2$ may be taken with R to form a 9 to 14 membered fused bi or tricyclic ring together with the adjacent Ring A,

when m is 0, $Q^1$ is a group selected from the group consisting of Substituents illustrated below,

Substituents: $-COOR^{10}$; $-COSR^{10}$; $-OCOOR^{10}$; $-OCOR^{10}$; and $-CONR^{11}R^{12}$;

wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s);

and when m is 2, $(Y^2\text{-}Q^2)$(s) may be the same or different,

or a pharmaceutically acceptable salt thereof as an active ingredient.

49. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), the substituent(s), by which alkyl group, alkenyl group or alkynyl group in $R^{10}$, $R^{11}$ and $R^{12}$ is substituted, are the same or different and at least one substituent selected from the group consisting of halogen atom, hydroxy group, substituted or unsubstituted alkoxy group, substituted or unsubstituted amino group, substituted or unsubstituted aryl group, and substituted or unsubstituted heterocyclic group.

50. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), Z is methylene and Ring A is benzene.

51. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), $Y^1$ is $C_{1-5}$ alkylene, $Q^1$ is hydrogen atom, hydroxy group or alkoxy group, $Y^2$ is a single bond, and $Q^2$ is $-COOR^{10}$.

52. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), Z is methylene, Ring A is benzene, $R^{10}$ is alkyl group substituted by hydroxy group, amino group, alkylamino group or dialkylamino group, and m is 1.

53. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), $Y^1$ is $C_{1-5}$ alkylene, $Q^1$ is hydrogen atom, hydroxy group or alkoxy group, $Y^2$ is $C_{1-3}$ alkylene, $Q^2$ is $-COOR^{10}$, and m is 1.

54. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), m is 0, $Y^1$ is $C_{1-6}$ alkylene which may be substituted with oxo group, and $Q^1$ is $-COOR^{10}$, $-COSR^{10}$, $-OCOR^{10}$, $-OCOOR^{10}$, $-CONR^{11}R^{12}$ or $-OCONR^{11}R^{12}$.

55. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1) $X^1$ is oxygen atom, sulfur atom or $NR^1$ (wherein $R^1$ is hydrogen atom or alkyl group).

56. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), m is 0, $X^1$ is a single bond, $Y^1$ is $C_{1-4}$ alkylene which may be substituted by oxo group, and $Q^1$ is $-COOR^{10}$.

57. (New) The topically administrable medicament according to claim 48, wherein in the general formula (1), the limitation is either 1) or 2) below:

1) n is 0;

2) n is 1 or 2, and R is alkyl group, alkoxy group or halogen atom.

58. (New) The adenine compound or its pharmaceutically acceptable salt of claim 47, wherein in the general formula (1), Z is methylene, Ring A is a 5 to 10 membered mono or bicyclic hetero ring containing 1 to 3 heteroatoms selected from the group consisting of 0 to 2 nitrogen atoms, 0 or 1 oxygen atom, and 0 or 1 sulfur atom.

59. (New) The adenine compound or its pharmaceutically acceptable salt of claim 47, wherein in the general formula (1), the heteroaromatic ring in Ring A is furan, thiophene, or pyridine.

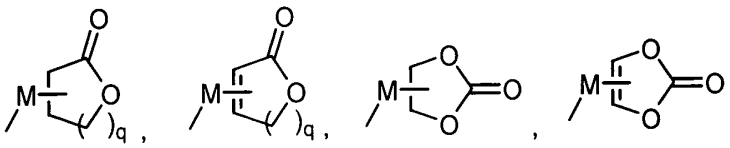
60. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 58, wherein in the general formula (1), $Q^1$ is hydrogen atom, hydroxy group or alkoxy group, $Y^1$ is $C_{1-5}$ alkylene, $Q^2$ is $-COOR^{10}$ (wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group), and m is 1.

61. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 58, wherein in the general formula (1), $Y^2$ is a single bond.

62. (New) The adenine compound, its tautomer or its pharmaceutically acceptable salt according to claim 58, wherein in the general formula (1), m is 0, $Y^1$ is $C_{1-6}$ alkylene which may be substituted by oxo group, and $Q^1$ is $-COOR^{10}$, $-COSR^{10}$, $-OCOR^{10}$, $-OCOOR^{10}$, $-CONR^{11}R^{12}$ or $-OCONR^{11}R^{12}$ (wherein wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or

unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3).

63. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 58, wherein in the general formula (1), the substituent(s) by which alkyl group, alkenyl group or alkynyl group in $R^{10}$, $R^{11}$, $R^{12}$, $R^{20}$, $R^{21}$ and $R^{22}$ is substituted, are at least one substituent selected from the group consisting of halogen atom, hydroxy group, substituted or unsubstituted alkoxy group, substituted or unsubstituted amino group, substituted or unsubstituted aryl group, and substituted or unsubstituted heterocyclic group.

64. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 58, wherein R is hydrogen atom, alkyl group, alkoxy group, or halogen atom.

65. (New) The adenine compound or its pharmaceutically acceptable salt, wherein in the general formula (1), Z is methylene, Ring A is benzene, $Q^1$ is hydrogen atom, hydroxy group or alkoxy group, $Y^1$ is $C_{1\text{-}5}$ alkylene, $Y^2$ is a single bond, $Q^2$ is -$COOR^{23}$ (wherein $R^{23}$ is alkyl group substituted by amino group, alkylamino group or dialkylamino group), and m is 1.

66. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 58 or 65, wherein in the general formula (1), $X^1$is oxygen atom, sulfur atom or $NR^1$ (wherein $R^1$ is hydrogen atom or alkyl group).

67. (New) The topically administrable preparation according to claim 48, wherein the preparation is a prophylactic or therapeutic agent for viral diseases, dermal diseases or allergic diseases.

68. (New) The topically administrable preparation according to claim 48 wherein the allergic disease is asthma.

69. (New) The topically administrable preparation according to claim 48 wherein the allergic disease is atopic dermatosis.

70. (New) The topically administrable preparation according to claim 48, wherein the half-life in serum on the compound of the general formula (1) is less than 1 hour.

71. (New) The topically administrable preparation according to claim 48, wherein the half-life in lever S9 of the compound of the general formula (1) is less than 1 hour.

72. (New) The topically administrable preparation according to claim 48, wherein the interferon concentration in serum is less than 10 IU/ml after said compound is topically administered.

73. (New) The topically administrable preparation according to claim 48, wherein the preparation is an inhalation formulation.

74. (New) A method for regulating immune response, comprising topically administering to a patient in need an effective amount of an adenine compound of claim 47.

75. (New) A method for regulating immune response, comprising topically administering to a patient in need an effective amount of the medicament comprising an adenine compound represented by the formula (1) of claim 48.

76. (New) A method for regulating immune response, comprising topically administering to a patient in need an effective amount of an adenine compound in claim 58 or 65.

77. (New) A method for treatment or prophylaxis of viral diseases, dermal diseases or allergic diseases, comprising topically administering to a patient in need an effective amount of an adenine compound of claim 47.

78. (New) The method according to claim 77 wherein the allergic disease is asthma or atopic dermatosis.

79. (New) A method for treatment or prophylaxis of viral diseases, dermal diseases or allergic diseases, comprising topically administering to a patient in need an effective amount of the medicament of claim 48.

80. (New) A method for treatment or prophylaxis of viral diseases, dermal diseases or allergic diseases, comprising topically administering to a patient in need an effective amount of an adenine compound in claim 58 or 65.

81. (New) The method according to claim 77 wherein the half-life in serum on the compound of the formula (1) is less than 1 hour after said compound is locally administered.

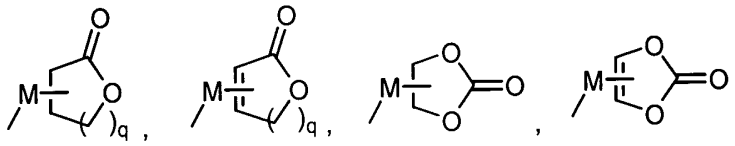
82. (New) The method according to claim 77 wherein the half-life in lever S9 on the compound of the formula (1) is less than 1 hour after said compound is locally administered.

83. (New) The method according to claim 77 wherein the interferon concentration in serum is less than 10IU/ml after said compound is topically administered.

84. (New) The method according to claim 77, wherein the compound is administered by inhalation formulation.

85. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 63, in which, in formula (1), at least one of $Q^1$ and $Q^2$ is $COSR^{10}$, $OCOOR^{10}$, $OCOR^{10}$ or $OCONR^{11}R^{12}$ (wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



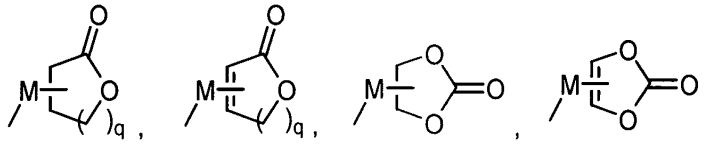
(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3).

86. (New) The adenine compound or its pharmaceutically acceptable salt according to claim 66, in which, in formula (1), at least one of $Q^1$ and $Q^2$ is $COSR^{10}$, $OCOOR^{10}$, $OCOR^{10}$ or $OCONR^{11}R^{12}$ (wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or

unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



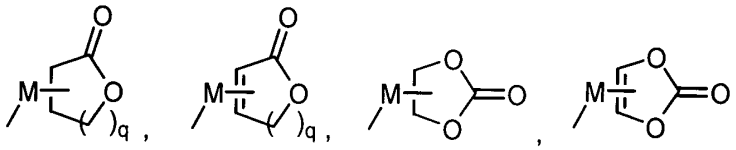
(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3).

87. (New) The method of claim 76, in which in the compound of the formula (1), at least one of $Q^1$ and $Q^2$ is $COSR^{10}$, $OCOOR^{10}$, $OCOR^{10}$ or $OCONR^{11}R^{12}$ (wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or

unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):

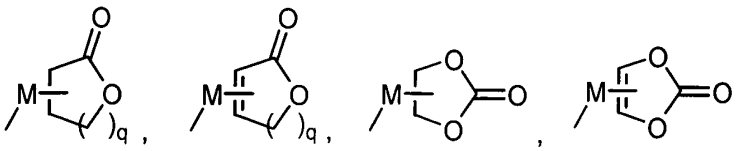


(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3).

88. (New) The method of claim 80, in which in the compound of the formula (1), at least one of $Q^1$ and $Q^2$ is $COSR^{10}$, $OCOOR^{10}$, $OCOR^{10}$ or $OCONR^{11}R^{12}$ (wherein $R^{10}$ is substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, $R^{11}$ and $R^{12}$ are independently hydrogen atom, substituted or unsubstituted alkyl group, substituted or unsubstituted cycloalkyl group, substituted or unsubstituted alkenyl group, substituted or unsubstituted cycloalkenyl group, or substituted or unsubstituted alkynyl group, or $R^{11}$ and $R^{12}$may are taken together to form with the adjacent nitrogen atom a 5 to 7 membered heterocycle containing a nitrogen atom(s));

and any group selected from the following formulas (3) ~ (6):



(3) (4) (5) (6)

(wherein M is a single bond, oxygen atom or sulfur atom, and q is an integer selected from 1 to 3).